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## ABSTRACT OF THE DISCLOSURE

In multi-access communications network. an interference cancellation (IC) method is used to reduce the interference between users and help increase the capacity of the network. A window is used in the IC method to cancel the interference on a user signal from other user signals within the window. The window then slides to process a different part of the user signals. This window slide may be accomplished using a full or a partial slide of the window. The present invention achieves a very small delay for the interference user signals using a cancellation of multi-stage interference cancellation method.